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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,171	12/21/2001	Agapios K. Agapiou	1999U024D1.US	9429

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3  
EXAMINER

PASTERCZYK, JAMES W

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/026,171

Applicant(s)  
Agapiou et al.

Examiner  
J. Pasterczyk

Art Unit  
1755

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 1 6) ☐ Other:

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1. The ancestry data of this case should be updated in the specification.
2. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 5, 6, 8-10, 14 and 18-20, it is not clear what distinguished a metallocene "type" catalyst since a compound either is or is not a metallocene, and the term "bulky" as applied to "ligand" is a term of degree without particular distinction since all cyclopentadienyl group containing ligands are rather bulky compared to e.g. carbonyl ligands.

Comparing claims 4 and 5, it is not clear how claim 4 can refer to 25 deg C as being "heated" while claim 5 refers to the same temperature as being "room temperature".

In claim 10, l. 3 and 4, change "at" to --to--; also, in the last line (b) and (c) are steps, not reagents, hence they cannot be added together in a further step.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 6, 7, 14, 15 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 96/35729 (hereafter referred to as Razavi I).

Razavi I discloses the invention as claimed (abstract; p. 2, l. 28 to p. 3, l. 6; p. 3, l. 19-35).

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Razavi I as cited above.

The disclosure of Razavi I has been discussed above.

Razavi I lacks disclosure of the solubility of the metallocene in toluene and heating the support before combining it with the heated catalyst.

However, combining a heated catalyst with a heated support is conventional in the art since Razavi I can also be read as teaching the heating of the support along with the catalyst, and the solubility of the metallocene in toluene is a function of the choice of metallocene, which is within the range of skill of the routineer in the art to choose.

It would have been obvious to one of ordinary skill in the art to apply that skill to the disclosure of Razavi I with a reasonable expectation of obtaining a highly-useful method of making a supported catalyst with the expected benefit of the catalyst having high activity with low fouling.

7. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Razavi I as cited above in view of Razavi, USP 5,914,289 (hereafter referred to as Razavi II).

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The disclosure of Razavi I has been discussed above.

Razavi I lacks disclosure of reslurrying the heated and dried supported catalyst.

However, Razavi II teaches that such a step is conventional in the preparation of supported metallocene catalysts that themselves have been prepared by heating the metallocene catalyst before depositing it on the support (abstract; col. 4, l. 4-18, l. 31-35, l. 41-47).

It would have been obvious to one of ordinary skill in the art to apply the teaching of Razavi II to the disclosure of Razavi I with a reasonable expectation of obtaining a highly-useful method of making a supported metallocene catalyst with the expected benefit of the catalyst providing a broad MWD polymer.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Sivaram USP and EPO references are cumulative 102 references as are the Uwai USP and the other Razavi USP.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is (703) 308-3497. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached on (703) 308-3823. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

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Mark L. Bell  
Supervisory Patent Examiner  
Technology Center 1700



J. Pasterczyk

AU 1755

9/5/03